

Microsoft Excel 2010 The Basics



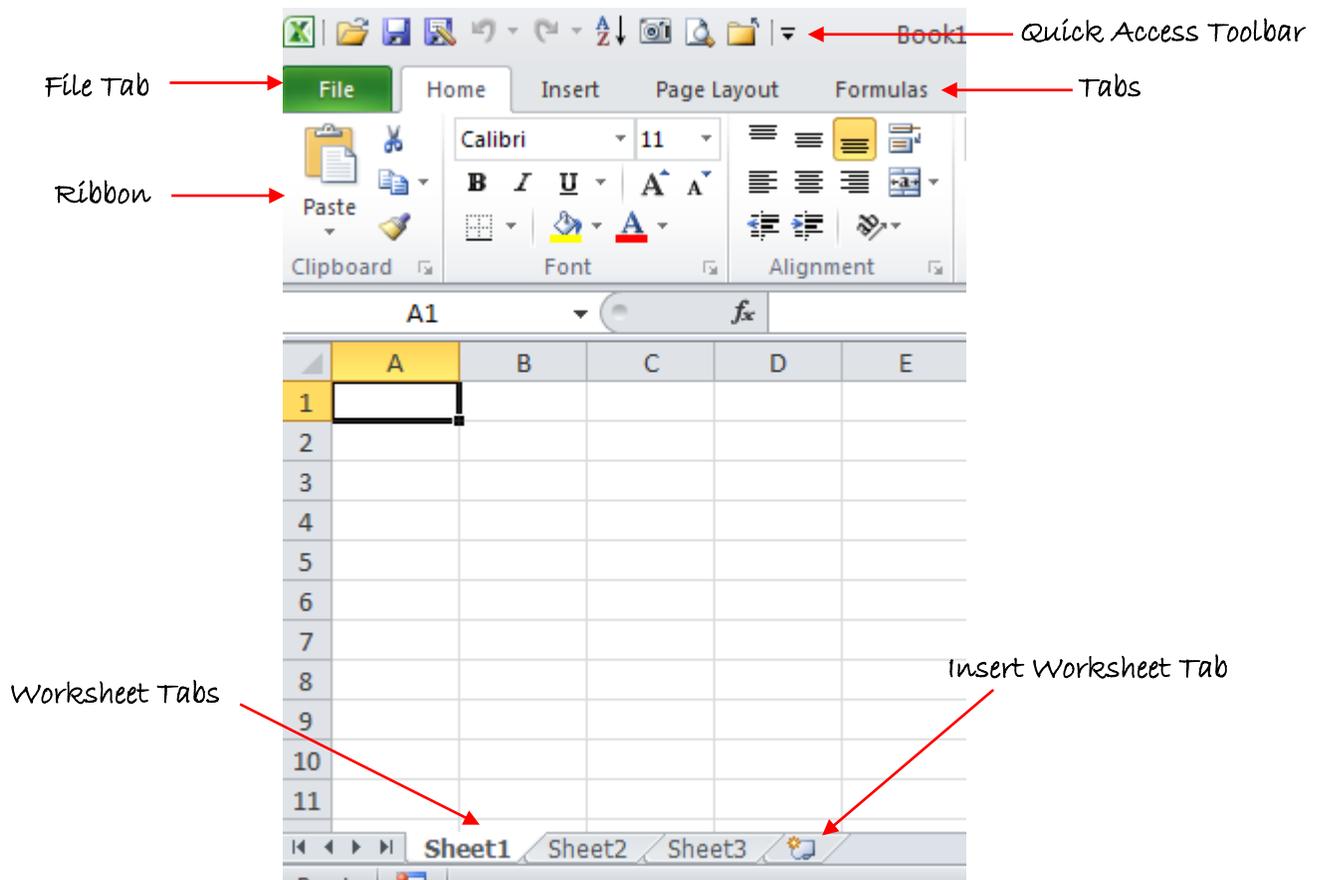
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Microsoft Excel 2010: The Basics

Training Agenda

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Ribbon: This is the multi-tabbed toolbar system that contains buttons and other controls for issuing commands.

File Tab: Opens the “backstage view” commands for saving, opening, and printing files.

Tabs: There are two meanings for this word. A tab is an individual page of the Ribbon; however, it's also the word you click to display that page. For example, you click the word Data to display the Data tab.

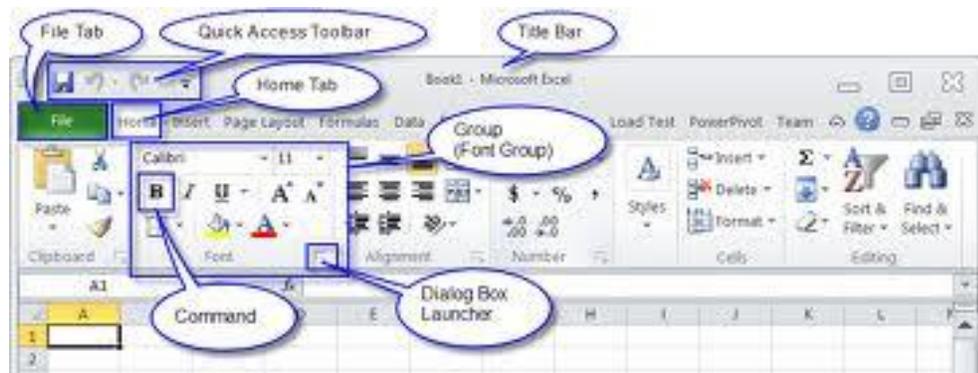
Quick Access Toolbar: A customizable portion of the interface. You can place shortcuts to your favorite buttons and commands here. By default, it contains Save, Undo, and Redo buttons.

Insert Worksheet tab: You can click this tab to insert another worksheet.

Worksheet tabs: You can click one of these tabs to switch between worksheets.

The Ribbon

- The Ribbon replaces the menu system from earlier versions of Excel. Instead of drop-down menus, you now have tabbed pages (a.k.a. tabs) of toolbars. The buttons on the Ribbon are like the buttons on the toolbars in earlier versions of Excel.
- Each Ribbon tab has named sections, called groups.
- Some of the groups have icons in their lower-right corners. These are *dialog box launchers*. They open dialog boxes containing more options for the settings in that group than the Ribbon provides.

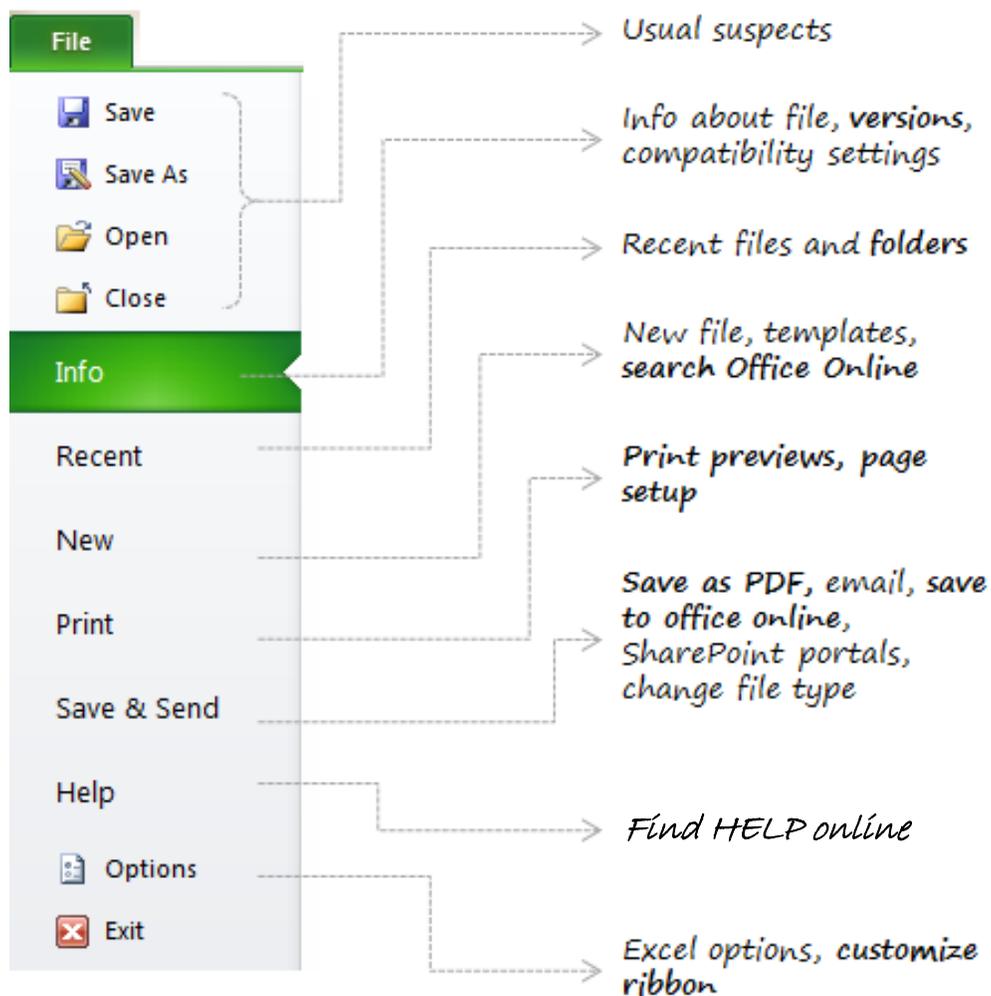


Groups expand or collapse based on the width of the Excel window. When the Excel window is very small, some groups become single buttons that drop down into a palette of buttons when you click them. When the Excel window is very large, some groups expand such that some of the more popular buttons are larger than normal.

Excel 2010 Backstage View

Click the FILE tab to open this view. The Office menu contains many of the same commands that were on the File menu in earlier versions, including Exit, Save, Save As, and Print.

- You will see two columns. Commands appear in the left column. When you point at an arrow in the left column, additional commands appear in the right column.
- Office 2010 automatically identifies various folders you work with and shows them in “recent places”. You can quickly access these by clicking on Recent option from file menu.
- You can pin frequently used files and folders to recent list. This can save you a lot of time if you tend to work with same set of files.
- In the Recent files list, there is a check box called “quickly access...” Check that to see last 4 files used in the file menu itself.

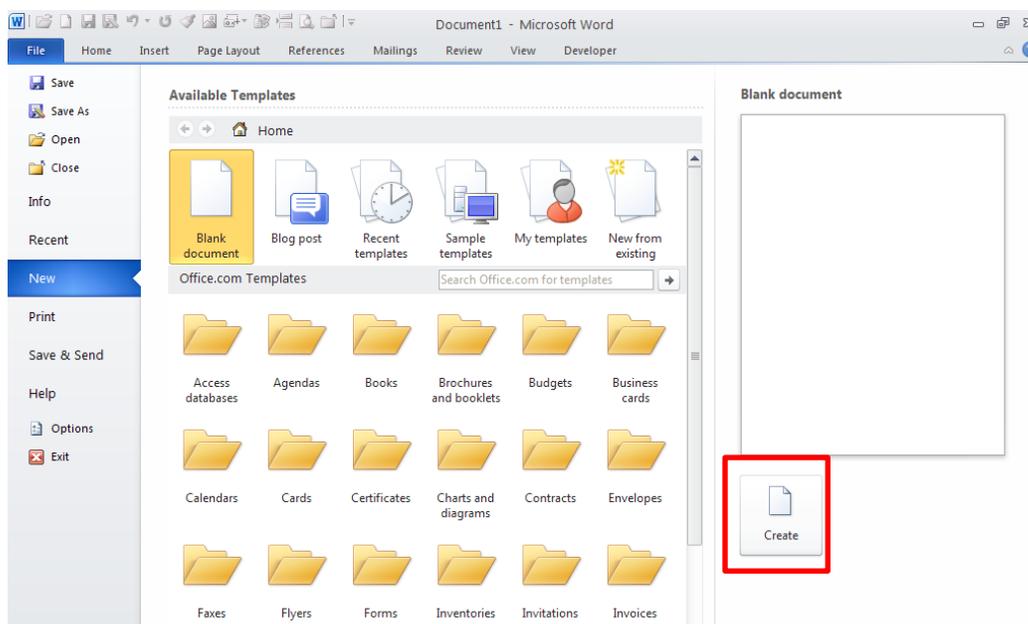


Excel 2010 **CREATING, SAVING, & OPENING SPREADSHEETS**

CREATING A NEW WORKBOOK

To start another new workbook,

- Click the File tab
- Select New.
- Highlight the Blank Workbook template
- Double-click or click Create to create another workbook just like the default one



If you find yourself frequently needing to create a new blank workbook, place a shortcut button that does that on the Quick Access Toolbar.

- Click the File tab
- Click Excel Options
- Select Quick Access Toolbar in the left pane
- In the left list of options, select New
- Click Add >> to move it to the list on the right
- Click OK

Navigating the Spreadsheet

Scrollbars

- Scroll a little bit: click on the arrow.
- Scroll quickly while still viewing the passing screen: drag the scroll bar.
- Scroll one screen-full at a time: click just above (or below) the arrow.

Keyboard shortcuts

To change which cell is active, use the arrow keys, click the desired cell, or use the keyboard shortcuts from the following table:

- **Arrows**: One cell in the direction of the arrow
 - **Home**: Beginning of current row
 - **Ctrl+Home**: Beginning of the worksheet
 - **Ctrl+End**: Bottommost, rightmost non-blank cell in sheet
 - **Page Down**: Down one full screen
 - **Page Up**: Up one full screen
 - **Alt+Page Down**: Right one full screen
 - **Alt+Page Up**: Left one full screen
 - **Enter**: To beginning of next row (or beginning of data range in next row)
 - **Tab**: One cell to the right
 - **Shift+Tab**: One cell to the left
- You can also click on the cell name box and enter the desired cell name. Press **Enter**.

GO TO

To locate a cell quickly, use the Go To feature.

- *Home | Editing | Find & Select | Go To* Enter the cell name (column & row). Press **Enter** or click OK.
- **CTRL + G**
- **F5** key

INSERT/DELETE COLUMNS & ROWS

1. Click on the header area of the column to highlight column.
2. Choose *Home | Cells | Insert | Insert Sheet Columns* Column will be inserted to the left.

For multiple column creation, highlight number of columns you need; same number will be created to left.

ROWS: same as columns. *Home | Cells | Insert | Insert Sheet Rows*

Rows will be inserted *above* the starting/highlighted row.

DELETING: Highlight column(s) or row(s); choose *Home | Cells | Delete*

DATA ENTRY

To enter data into a cell, simply select the cell and begin typing. When finished you can; press:

- **ENTER:** moves (down) to the next row
- **TAB:** moves (right) to the next cell
- **ARROW** key: next cell in the direction of the arrow
- **CTRL/ENTER** or **CHECKMARK:** cursor stays in the same cell
- **SHIFT/ENTER:** moves up to the next row

SAVE A SPREADSHEET

- Select *Quick Access Toolbar / Save* The default save location for Excel is in “My Documents”. You will be prompted for a name in the bottom field. Type in an appropriate label for your file. Excel will automatically assign it an .xlsx file designation – indicating it is a Microsoft Excel 2010 document.
- After you have saved a file, you can save it again after working on it without having to name it again. Excel remembers your file name and simply updates your information.

Shortcut: You can also press **CTRL + S** to save your file.

SAVE A SPREADSHEET WITH A DIFFERENT NAME OR IN A DIFFERENT LOCATION

If you would like to save your file, but rename it something different, select *File tab / Save As* and insert the new name for this file. This is a useful feature if you want to save the original file as your ‘master’ file and the second one will be the most current with new information.

- If you want to save your spreadsheet in a different location other than the defaulted location, use the *Save As* method, then navigate the file system to determine its new saved location. Remember, subsequent work on this same file will save into this new location.

RESERVED CHARACTERS

Do not use these characters in your saved file name:

Dollar sign (\$)
At sign (@)
Angle brackets (< >), brackets ([]), braces ({ }), and parentheses (())
Colon (:) and semicolon (;)
Equal sign (=)
Caret sign (^)
Pipe (vertical bar) (|)
Asterisk (*)
Exclamation point (!)
Forward (/) and backward slash (\)
Percent sign (%)
Question mark (?)
Comma (,)
Quotation mark (single or double) (' ")

OPEN A SPREADSHEET

- Click on *File tab / Open* Find the saved file in your directory structure and click **OPEN**.
- To re-open a saved workbook, click on *File tab / Recent* and choose one of the last 4 saved workbooks at the bottom of the menu.

TEXT

- Entries that contain one or more non-numeric characters. Left-aligned by default

NUMBERS

- Entries that contain only digits and number-related punctuation (decimal points, commas, dollar signs, and percent signs). Right-aligned by default.
- If you desire to enter a numerical character which will not be used for arithmetic calculations, you can mark it as a 'label' vs. a number by typing an apostrophe " ' " before entering the number. It will not show in the cell, but will show in the formula bar.

EDIT an entry in a cell:

- select it with mouse click, type new entry
- select it with mouse click, press **DELETE**, type new entry
- select it with mouse click, change information in Formula bar
- select it by double-clicking, insert or move cursor to new entry point, type

Clearing content

You can clear a cell's content in several ways:

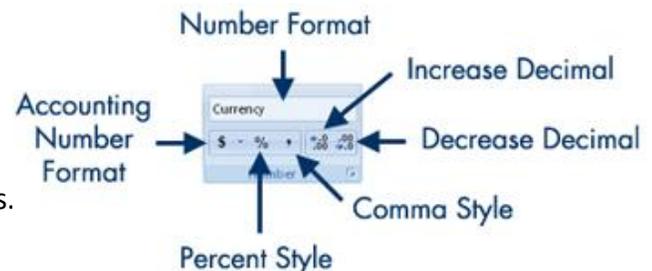
- Press Delete on the keyboard.
- Right-click the cell, and then select Clear Contents.
- On the Home tab, in the Editing group, select Clear > Clear Contents

NOTE: Clearing a cell's content doesn't clear its formatting. You can clear formatting from

the Clear button's menu; select Clear Formats; or to clear both contents and formats at once, select Clear All.

NUMBER FORMATTING

- Type in the symbols (\$, %, ,) as you enter numbers.
- *Home | Number*
- Fractions: whole number, space, numerator/denominator. If only a fraction, use zero first.
- Negative number: enter them enclosed in parentheses.



SELECTING RANGES OF CELLS

- Entire Worksheet
 - click leftmost, topmost cell – the *Select All* button
 - **CTRL + A**
- A connected/contiguous range of cells
 - Click the first cell in the range, then drag to the last cell
 - Hold down **SHIFT** while you press the arrow keys
 - Press the **F8** key to 'anchor' your first selection, then select as above
- A non-connected/non-contiguous range of cells
 - Select first cell; hold **CTRL** key while clicking on additional cells
- A row or column
 - Click on the header area (where the letter or number is)
 - To add adjacent ones, drag across rows or columns
 - To add non-contiguous ones, hold **CTRL** key and click on additional headers.

CUT/COPY/PASTE

Excel uses the standard Microsoft functions for moving or copying data.

1. Select the cell.
2. Choose *HOME/CLIPBOARD/CUT* (**CTRL + X**) or *COPY* (**CTRL + C**)
3. Click the destination cell.
4. Choose *HOME/CLIPBOARD/PASTE* or **CTRL + V**

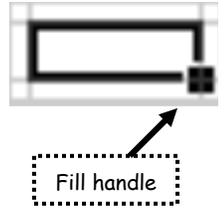
MOVE a cell by dragging

1. Select a cell
2. Position the cursor over a border (except the bottom right corner)
3. Drag to new cell location.
4. Click to release

COPY a cell by dragging by holding the **CTRL** key while dragging.

AUTOFILL

Use a cell's FILL HANDLE (the little black square at the bottom right of a cell) to fill in adjacent cells with the same data as the current cell (or even incremental values of that data).



To repeat a cell's contents:

- Click on the fill handle and drag down or across to copy that cell's data.
- Click on *Home | Editing | Fill | Down*
- Click on the cell, drag down or over to the desired filled cells, **CTRL + D** (down) or **+ R** (right)

Fill in a series of numbers, dates, or other built-in series items

1. Select the first cell in the range that you want to fill.
2. Type the starting value for the series.
3. Type a value in the next cell to establish a pattern.

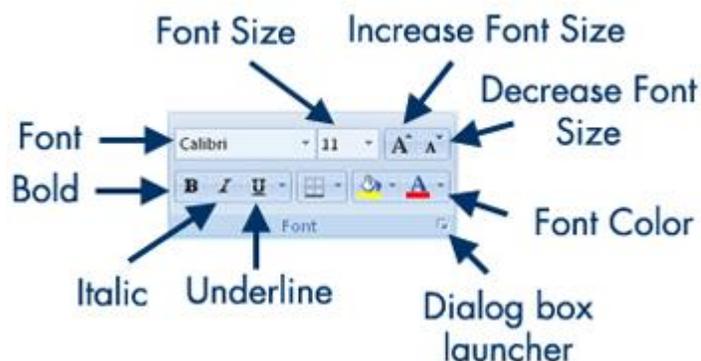
For example, if you want the series 1, 2, 3, 4, 5..., type 1 and 2 in the first two cells. If you want the series 2, 4, 6, 8..., type 2 and 4. If you want the series 2, 2, 2..., you can leave the second cell blank.

4. Select the cell or cells that contain the starting values.
5. Drag the fill handle across the range that you want to fill.

FIND/REPLACE

Go to

- *Home | Editing | Find & Select | Find*
- or use **CTRL + F**
- *Home | Editing | Find & Select | Replace*
- or use **CTRL + H**
- Enter string of characters for the search.



FONT FORMATTING

In addition to the font style and size buttons on the formatting toolbar, you can also format the font using *Home | Font | Font*

Pre-select text and you can see how the text will actually appear as you navigate through the font and size selections. Many other options are available in this option box.

Regular

Italic

Bold

Bold Italic

~~**Strikethrough**~~

^{Superscript}

_{Subscript}

Single Underline

Double Underline

Single Accounting Underline

Double Accounting Underline

Format Painter

If you have a formatted cell(s) and you would like to copy that same formatting to another cell (without having to re-do the formatting options one-by-one), use the Format Painter. Select the formatted cell with your cursor then click the Format Painter button at *Home | Clipboard | Format Painter*. It will remember the formatting and the cursor will change to an I-beam with a paint brush. Now, point-click-and-drag your mouse over the cell the you want formatted like the other, and when you release the mouse button, the special formatting will be painted/applied to that cell and the mouse will return to normal (the Format Painter function is turned off.)

If you want to apply formatting from one cell to several cells, you will need to double-click the Format Painter button. To release the Format Painter from your mouse after pasting in one or more cells, turn it off by hitting the ESC key or click on the Format Painter button again.

COLUMN WIDTH, ADJUSTMENT, WORD WRAP

You can also specify an exact width in number of characters. Column width is measured in characters of the default font. The default width is 8.43 characters. To specify exact width:

1. Right-click a selected column, and then select *Column Width*. Alternately, on the Home tab, in the Cells group, select *Format > Column Width*. The Column Width dialog box opens.
2. In the Column width text box, enter a number of characters.
3. Click OK.

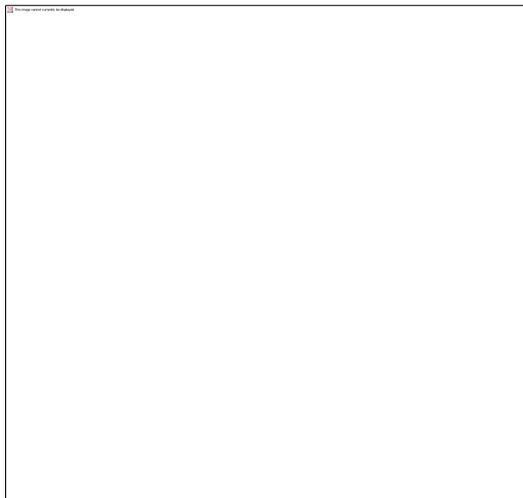
ROW HEIGHT

You can also adjust the row heights, although this isn't quite as important because row height adjusts automatically to accommodate the largest font used in that row. To adjust the row height, drag between the row numbers, the same as with columns. You also can use the AutoFit Row Height command on the Format button's menu (Home tab, Cells group).

WORD WRAP

If you set a cell (or multiple cells) to Word Wrap, and the cell isn't wide enough to accommodate all the text, the row height adjusts automatically to allow for multiple rows of text within the cell. To set Word Wrap, select the cell, and then on the Home tab, in the Cells group, select *Format > Format Cells*. On the Alignment tab, check the Wrap text checkbox, and then click OK.

- On the Home tab, in the Cells group, select Insert, and then select what you want to insert (for example, Insert Sheet Rows or Insert Sheet Columns)



FORMULAS

- Represent a mathematical calculation (add, subtract, multiply, divide, exponent)
- Use cell references to calculate the values in other cells of the spreadsheet
- Always begin with an =
- Mathematical operations can be combined
- Signs for mathematical operations:

Add (+)

Subtract (-)

Multiply (*)

Divide (/)

Exponent (^)

To enter a formula:

1. Click on the cell in which you wish to add the formula.
2. Type an equal sign (=).
3. Enter or click on the first cell reference in the formula.
4. Enter the mathematical operator (+, -, *, /, ^).
5. Enter or click on the second cell reference in the formula.
6. Press **ENTER**.

Order of Operations

1. Any operations that are in parentheses are calculated first, from left to right.
2. Exponentiation (^)
3. Multiplication (*) and Division (/)
4. Addition (+) and Subtraction (-)

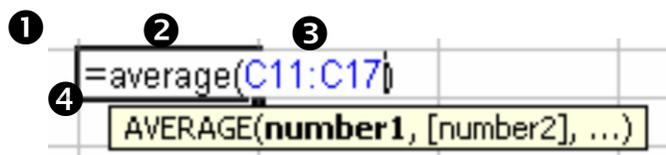
Viewing a Formula

- By default the results of a formula's operation will appear in the cell and the formula itself will appear in the formula bar.
- To view the formula in the cell itself, use **CTRL + `** (grave accent – just left of the 1 on the keyboard) to toggle on and off.

FUNCTIONS

Functions are predefined formulas that perform calculations by using specific values, called arguments, in a particular order, or structure. Functions can be used to perform simple or complex calculations.

Structure of a function



- 1 Structure.** The structure of a function begins with an equal sign (=), followed by the function name, an opening parenthesis, the arguments for the function separated by commas, and a closing parenthesis.
- 2 Function name.** For a list of available functions, click a cell and press SHIFT+F3.
- 3 Arguments.** Arguments can be numbers, text, logical values such as TRUE or FALSE, arrays, error values such as #N/A, or cell references.
- 4 Argument tooltip.** A tooltip with the syntax and arguments appears as you type the function.

Think of a **FUNCTION** as a word that represents a type of mathematical or logical calculation

COMMONLY USED FUNCTIONS

AVERAGE COUNT IF MIN MAX SUM TODAY

Functions can be typed manually. Follow the format in the argument tooltip.

Functions can be automatically placed by choosing Formulas | Function Library | Insert Function and choosing from the list.

EXAMPLES:

SUM (method 1 – using arrow keys)

Click on the cell in which you wish to have the SUM displayed.

Type **=SUM(** (equal sign, no space, the word SUM, left parenthesis).

Using your arrow keys, navigate to the first cell that you want to use in the calculation.

Press the period “.” key to set the beginning of the calculation.

Continue arrow keying to the final cell that will be used in the calculation.

Type a close parenthesis and press ENTER.

- 1. Look at your function cell. The total should now display.**

AVERAGE (method 2 – using mouse to select data fields)

1. Click on the cell in which you wish to have the SUM displayed.
2. Type **=SUM(** (equal sign, no space, the word SUM, left parenthesis).
3. Using your mouse, click on the first cell that you want to use in the calculation and drag to the end of the data cells that will be used.
4. Type a close parenthesis and press **ENTER**.
5. Look at your function cell. The total should now display.

AVERAGE (method 3 – using menu)

1. Click on the cell in which you wish to have the SUM displayed.
2. Choose *Formulas | Function Library | Insert Function*, select **AVERAGE** and click **OK**.
3. Type in the cell range to be used.
4. Click **OK**.

USING AutoSum



Use Excel's AutoSum button: *Home | Editing | AutoSum* to start your SUM function calculation.

- Use the pull-down AutoSum menu to access other frequently-used functions.

MOVING and COPYING A FORMULA OR FUNCTION

- When you move a formula, the cell references within the formula do not change.
- When you copy a formula, the cell references may change based on the type of reference used.
 - **Absolute cell reference:** In a formula, the exact address of a cell, regardless of the position of the cell that contains the formula. An absolute cell reference takes the form \$A\$1.
 - **Relative reference:** In a formula, the address of a cell based on the relative position of the cell that contains the formula and the cell referred to. If you copy the formula, the reference automatically adjusts. A relative reference takes the form A1.

PAGE SETUP

The Page Setup group on the Page Layout tab provides menus for changing various document-wide settings:

Margins: Select Normal, Wide, or Narrow presets or select Custom Margins to enter your own values.

Orientation: Select Portrait or Landscape.

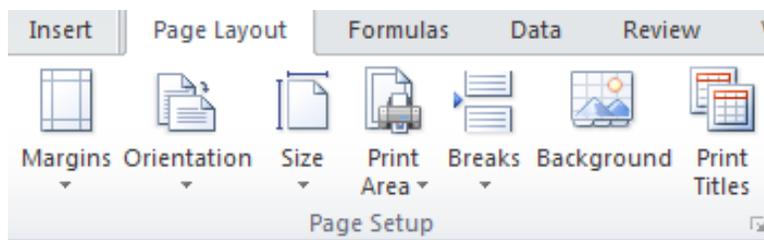
Size: Select a paper size; this setting determines where Excel shows page breaks in Print Preview.

Print Area: Select a range of cells, and then select Print Area, Set Print Area to print only a certain part of the worksheet. Use Print Area, Clear Print Area to reset the worksheet so everything prints.

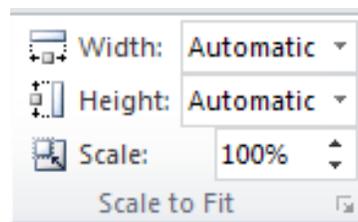
Breaks: Set or remove hard page breaks here.

Background: Specify a graphic to use as a background behind the cells.

Print Titles: Click this button to open the Sheet tab of the Page Setup dialog box, in which you can select certain rows and/or columns to repeat on every page of a printout.



Scale to Fit: In this group, you can set Excel to automatically shrink a printout's font to print a document on a specified number of pages, or to print at a certain percentage of the original font size



HEADER/FOOTER

Insert a **HEADER** or **FOOTER**

1. Click on Insert | Text | Header & Footer

PAGE BREAKS

Excel, by default and per your paper size setup, will indicate where the last row will print on the designated type of paper with a dashed line. You can manually decide where the page will end by inserting page breaks.

Inserting

- Click on a cell below the line on which you wish to have a page break.
- Choose *Page Layout | Page Setup | Breaks | Insert Page Break*
- Notice the light broken line indicating the page break.

PRINTING

After you create or edit a worksheet, you might want to print a hard copy of it.

You can print in two ways:

1. Print using the Print dialog box. Here, you can specify the range, the number of copies, the printer to use, and more.
2. Print using Quick Print. This sends one copy of the active worksheet to the default printer.

To print using the Print dialog box:

1. (Optional) If you want to print only a certain range of cells, select them.
2. Click the *File* tab, and then select Print. The Print dialog box opens and a Print Preview of your document appears on the right.
3. Change the Printer Settings or the Settings of the worksheet to print, as desired.
4. **SHOW MARGINS:** click on the first small box in the lower right
5. **ZOOM** – click on the second box in the lower right

The screenshot shows the Microsoft Excel interface with the Print dialog box open. The dialog box is titled "Print" and includes the following sections:

- Print:** A "Print" button and a "Copies" dropdown set to 1.
- Printer:** A dropdown menu showing "HP Photosmart C5200 series" (Offline) with a "Printer Properties" link.
- Settings:** A series of dropdown menus for "Print Active Sheets" (Only print the active sheets), "Pages:" (empty), "Print One Sided" (Only print on one side of the p...), "Collated" (1,2,3 1,2,3 1,2,3), "Portrait Orientation", "Letter" (8.5" x 11"), "Normal Margins" (Left: 0.7" Right: 0.7"), and "No Scaling" (Print sheets at their actual size). A "Page Setup" link is at the bottom.

The main window displays a table with the following data:

VOTER	PARTY	PREDINCT	AGE GROUP	LAST VOTED	YEARS REG	BALLOT STATUS
1012	REPUBLICAN	2408	71+	08/2006	51	PERM
1013	REPUBLICAN	2411	71+	08/2006	50	PERM
1014	DEMOCRAT	2424	71+	08/2006	50	PERM
1015	DEMOCRAT	2418	71+	08/2006	50	POLL
1016	REPUBLICAN	2411	71+	08/2006	50	PERM
1017	REPUBLICAN	2419	71+	08/2006	50	PERM
1018	REPUBLICAN	2417	71+	08/2006	48	PERM
1019	REPUBLICAN	2417	71+	08/2006	48	PERM
1023	DEMOCRAT	2424	71+	08/2006	46	POLL
1024	REPUBLICAN	2411	71+	08/2006	46	PERM
1025	REPUBLICAN	2416	71+	06/2006	46	POLL
1026	DEMOCRAT	2405	71+	08/2006	46	PERM
1027	REPUBLICAN	2405	71+	08/2006	3	PERM
1028	REPUBLICAN	2420	71+	06/2006	46	PERM
1029	DEMOCRAT	2416	71+	08/2006	45	PERM
1030	REPUBLICAN	2416	71+	08/2006	44	PERM
1031	REPUBLICAN	2412	71+	08/2006	44	PERM
1032	DEMOCRAT	2420	71+	08/2006	44	PERM
1033	DEMOCRAT	2419	61-70	08/2006	44	POLL
1034	DEMOCRAT	2408	71+	06/2006	44	PERM
1035	DECLINED	2418	71+	08/2006	44	POLL
1036	DECLINED	2418	71+	08/2006	44	POLL
1037	DEMOCRAT	2421	71+	08/2006	44	PERM
1038	DEMOCRAT	2408	71+	06/2006	42	PERM
1039	REPUBLICAN	2423	71+	06/2006	42	PERM
1040	DEMOCRAT	2405	71+	06/2006	42	PERM
1041	DECLINED	2423	71+	08/2006	42	PERM
1042	DEMOCRAT	2423	71+	08/2006	42	PERM
1043	DEMOCRAT	2414	71+	08/2006	7	PERM
1044	DEMOCRAT	2418	71+	08/2006	42	PERM
1045	AMERICAN IND	2405	71+	08/2006	42	POLL
1046	REPUBLICAN	2413	61-70	06/2006	42	PERM
1047	REPUBLICAN	2411	71+	11/2005	42	PERM
1048	DEMOCRAT	2422	71+	08/2006	42	PERM
1049	DEMOCRAT	2422	71+	08/2006	42	PERM
1050	DEMOCRAT	2422	71+	08/2006	42	POLL
1051	DEMOCRAT	2411	71+	08/2006	41	PERM
1052	REPUBLICAN	2422	71+	08/2006	41	PERM
1053	REPUBLICAN	2422	71+	08/2006	41	PERM
1054	DEMOCRAT	2417	71+	08/2006	40	PERM
1056	REPUBLICAN	2407	61-70	08/2006	41	PERM
1057	DEMOCRAT	2416	71+	08/2006	40	POLL
1058	DEMOCRAT	2422	71+	08/2006	40	PERM
1059	DEMOCRAT	2406	61-70	08/2006	40	POLL
1060	DEMOCRAT	2407	71+	06/2006	40	POLL